

FIGURE 1

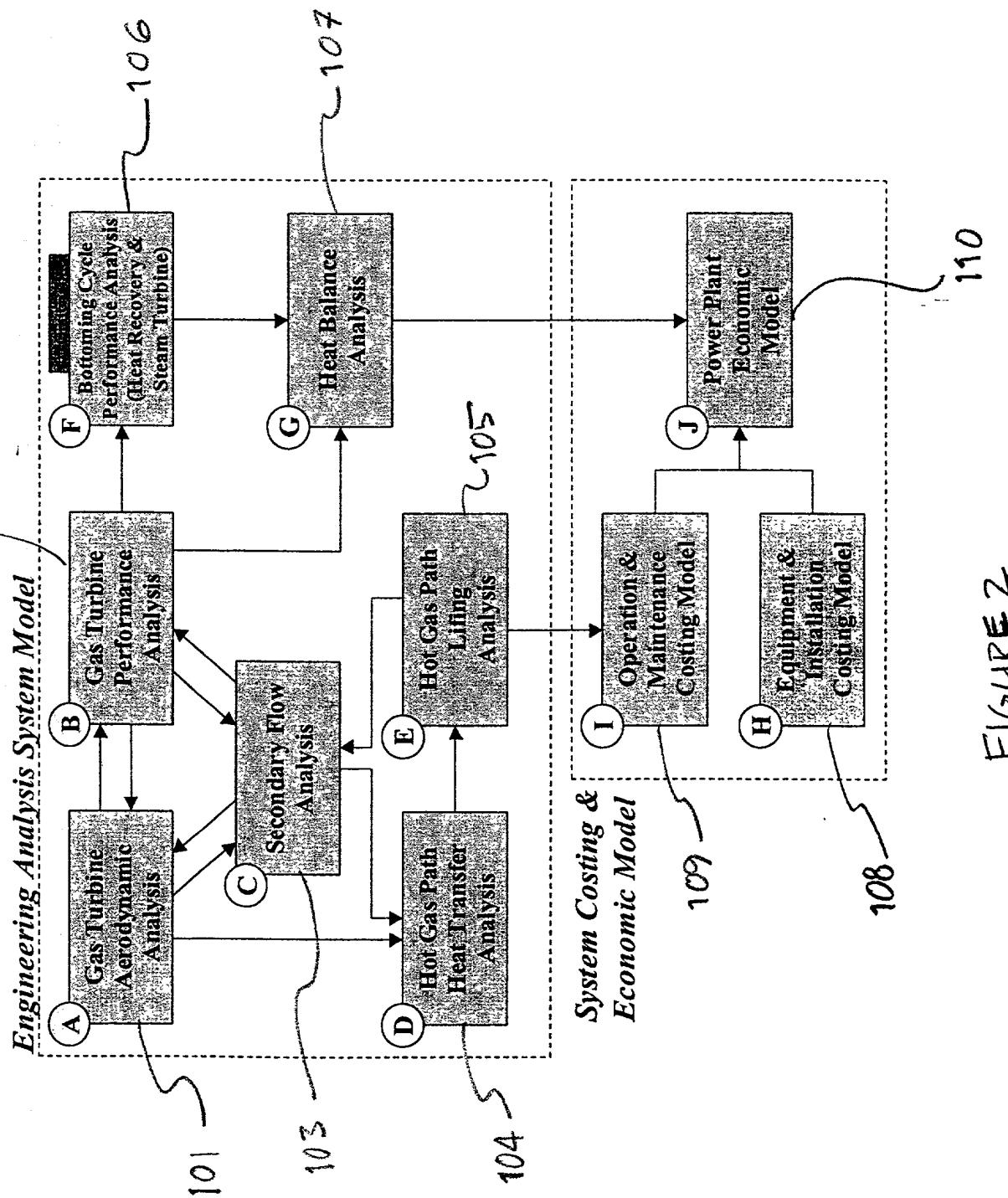


FIGURE 2

EX-11451

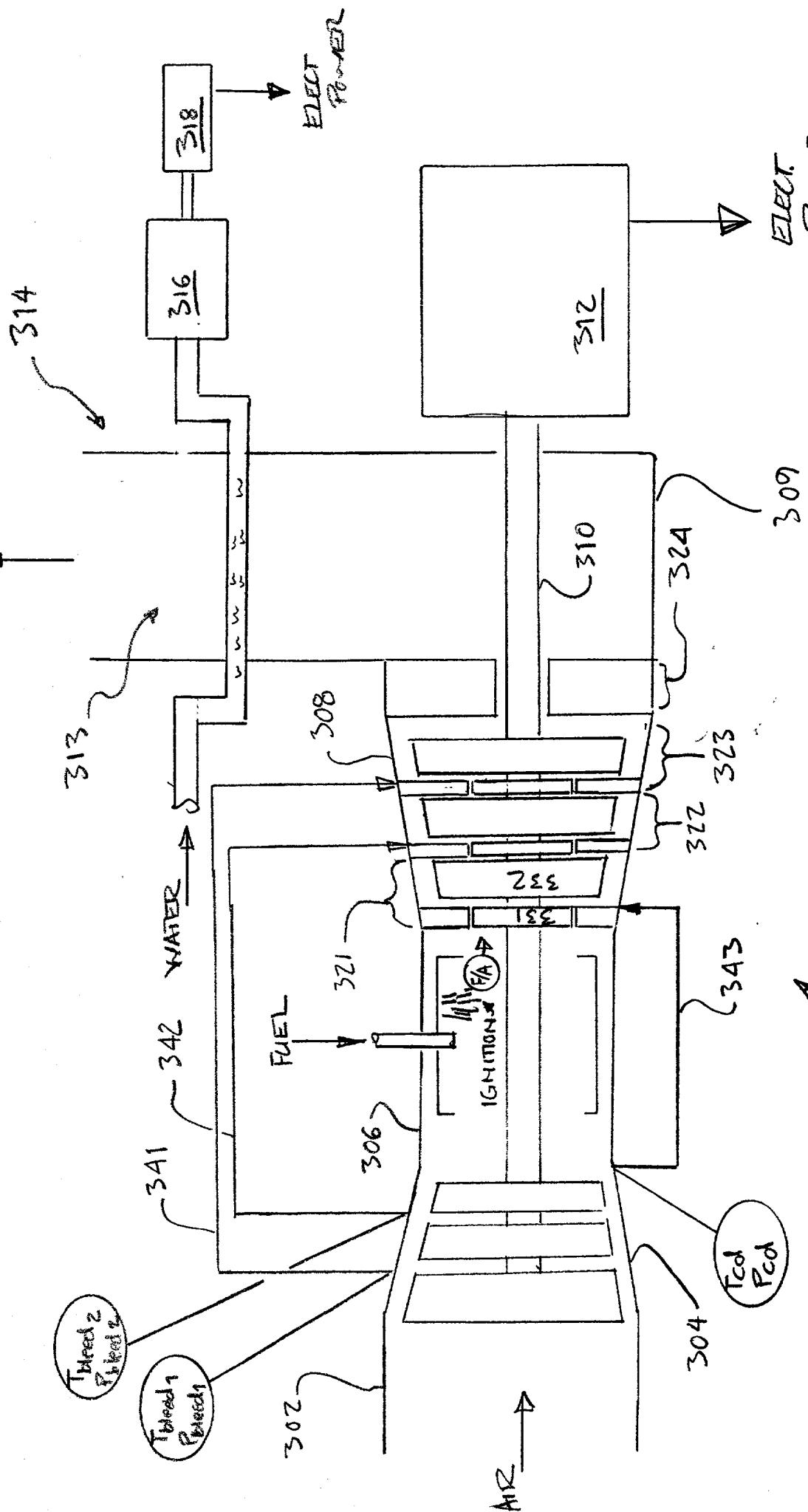


FIGURE 3

GT Simulator – Communication between Core Components

10^3

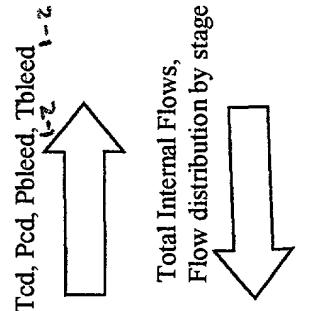
Performance Analysis

10^7

Secondary Flow Analysis

10^3

Choked and Unchoked Compressible
Flow equations, plus design information about
all cooling and leakage networks and areas



Stage-by-stage power
and efficiency
Interstage temperatures
and pressures

Total Internal flows
Flow distribution by stage

10^1

Turbine Aerodynamic Analysis

10^8

P_{exit}

P_s

P_t

T_s

T_{tire}

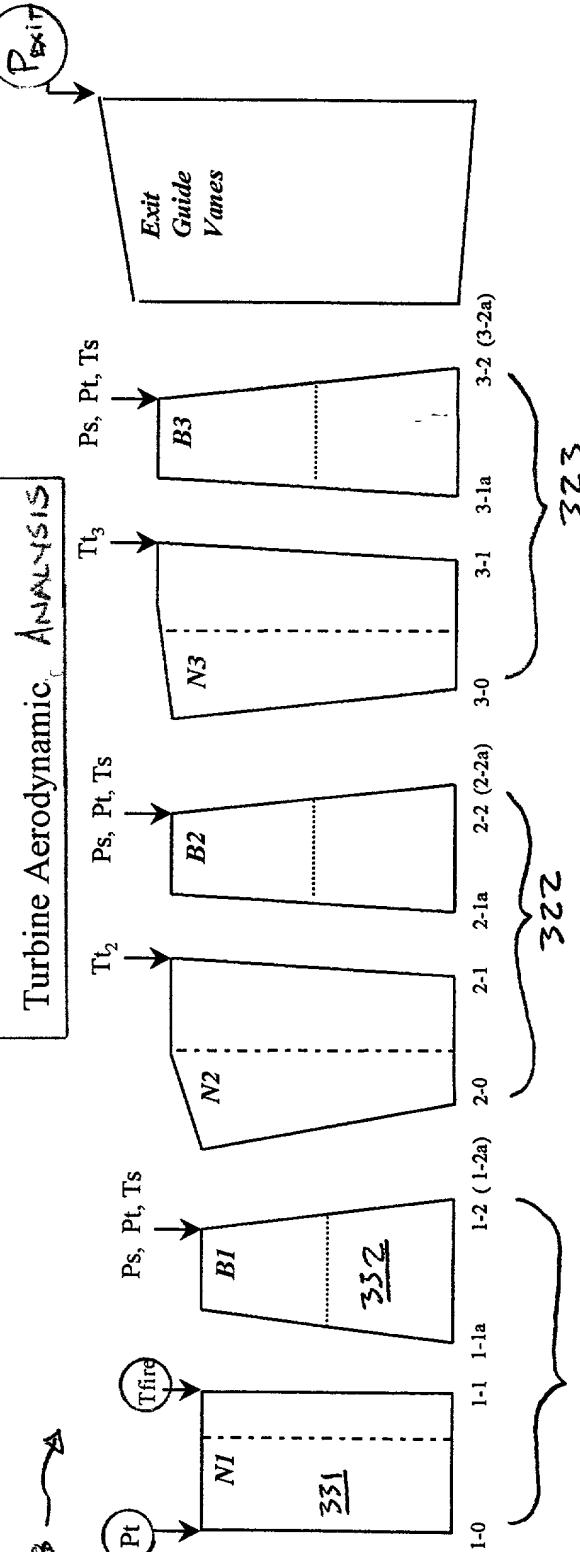
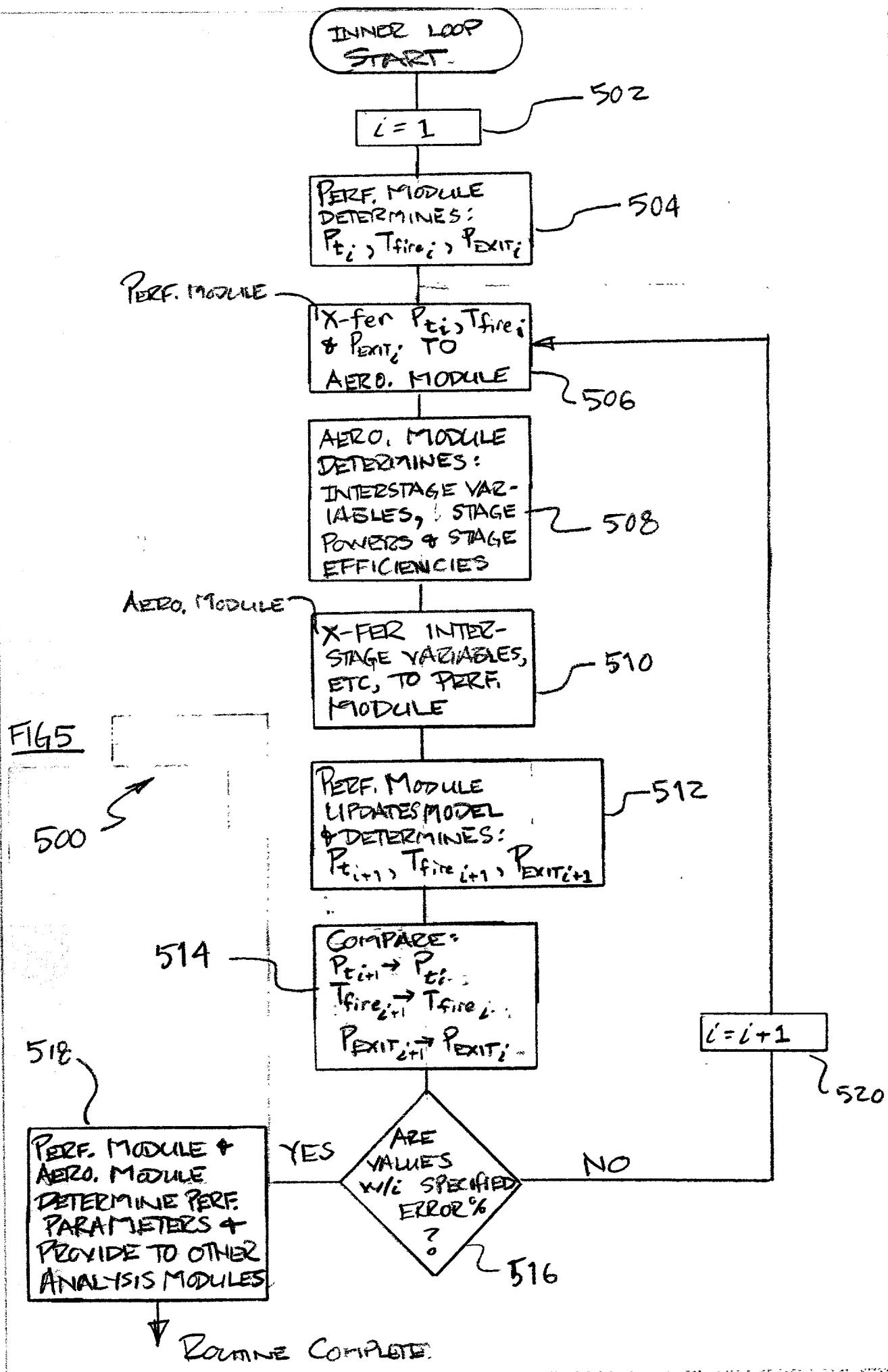
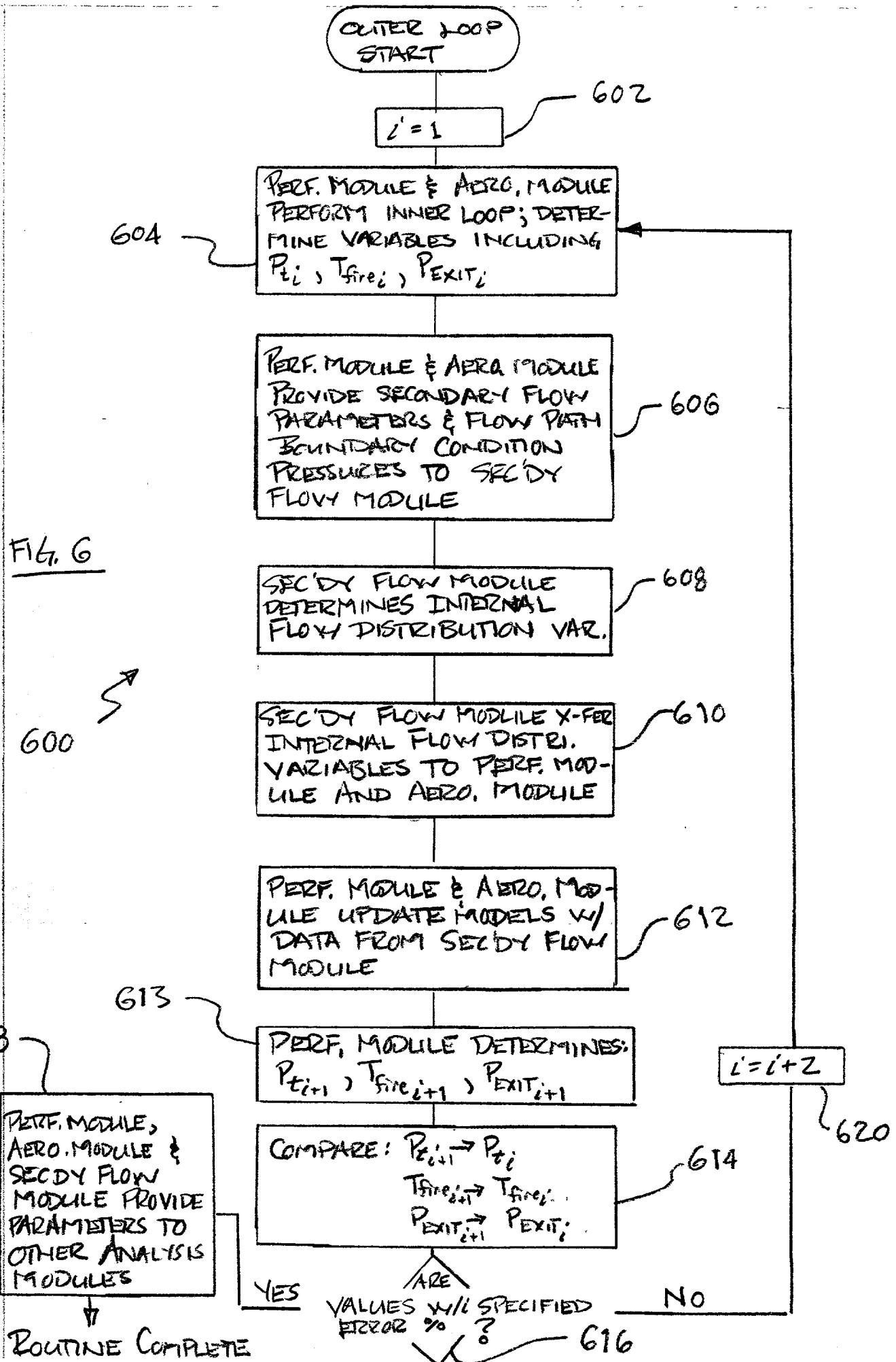


FIGURE 4





New Screen Print for PDF File: Figure #8

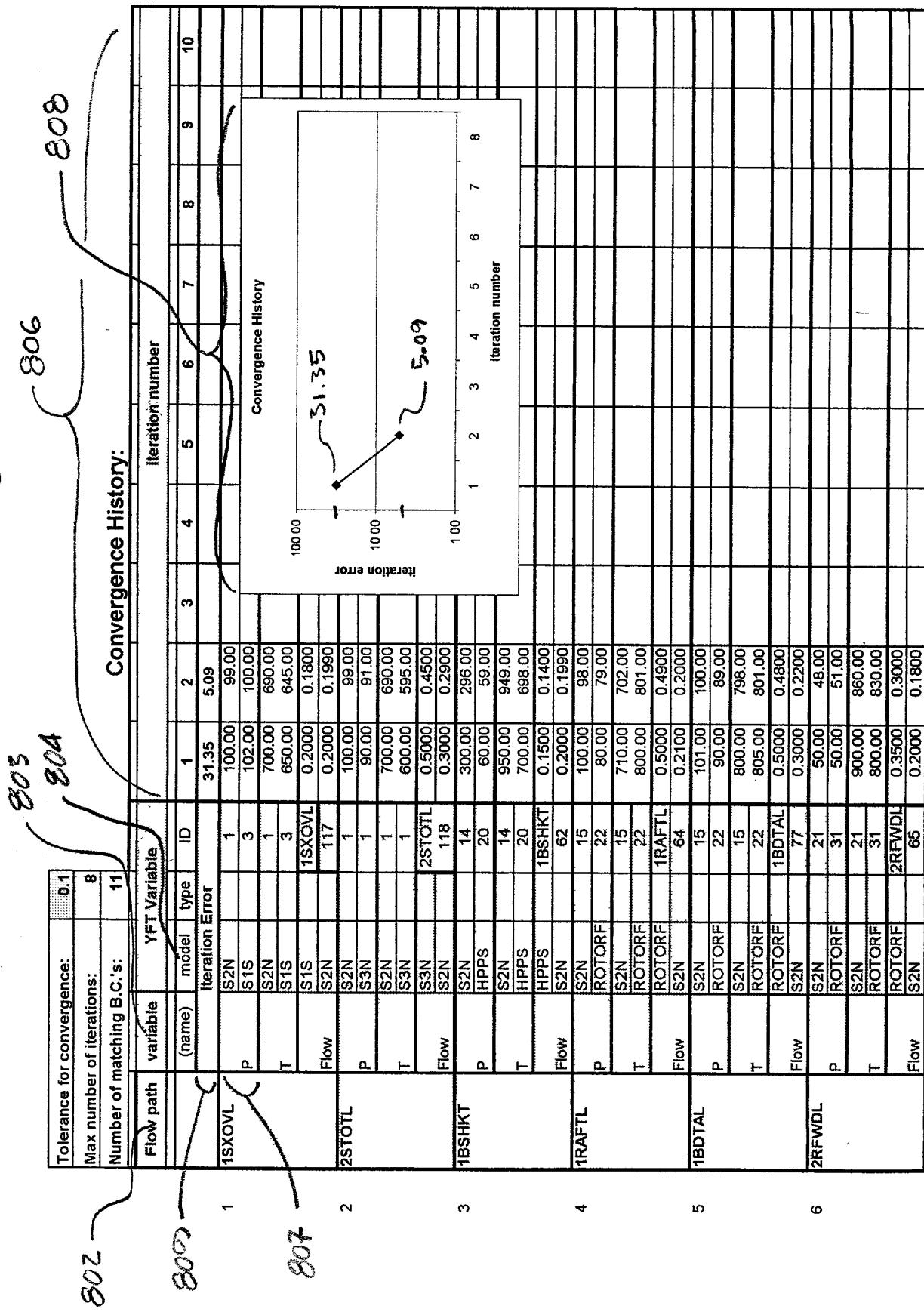


FIGURE 8

New Screen Print for PDF File: Figure #9

908

TP3 Settings		906	UNIT	7FA	6FA	TF	7FA	7FA	7FA+e
TP3 Axis	(linked or unlinked)	S1S	7FA				S1N		
	unlinked	S1B	7FA				S1B		
		S2N	7FA				S2N		
		S2S	7FA				S2S		
		S2B	7FA				S2B		
		S3N	7FA				S3N		
		S3S	7FA				S3S		
		S3B	7FA				S3B		
RPM	SysIn.RPM	3600		5254	3600	3600	3600	3600	3600
Frame Scale Factor	SF	1		1	1	1	1	1	1
S1N									
roughness	CLAKV_STG1	30		10	20	30	40	50	
inlet metal angle	SDIA_STG1	7		4	6	7	10	12	
throat area	SPA_STG1	20		16	18	20	22	24	
TE thickness	TEV_STG1	20		0	10	20	30	40	
S1S									
surface roughness	CLAKB_STG1	200		200	200	200	200	200	
inlet metal angle	RDIA_STG1	14		10	12	14	16	18	
throat area	RPA_STG1	100		100	100	100	100	100	
TE thickness	TEB_STG1	0.2		0.2	0.2	0.2	0.2	0.2	
S1 Data Match Adjusters									
flow coefficient (S1N)	SCF_STG1	0.6		0.4	0.5	0.6	0.7	0.8	
flow coefficient (S1B)	RCF_STG1	1		1	1	1	1	1	
efficiency (S1N)	DETAV_STG1	0		0	0	0	0	0.2	
efficiency (S1B)	DETAB_STG1	0		0	0	0	0	0.2	
S2N									
roughness	CLAKV_STG2	30		10	20	30	40	50	
inlet metal angle	SDIA_STG2	7		4	6	7	10	12	
throat area	SPA_STG2	30		26	28	30	32	34	
TE thickness	TEV_STG1	20		0	10	20	30	40	
S2S									
surface roughness	CL_STG2	0.4		0.3	0.4	0.4	0.2	0.8	
inlet metal angle	RDIA_STG2	100		100	100	100	100	100	
throat area	RPA_STG2	14		10	12	14	16	18	
TE thickness	TEB_STG1	180		180	180	180	180	180	
S2B									
surface roughness	CLAKB_STG2	100		100	100	100	100	100	
inlet metal angle	RDIA_STG2	14		10	12	14	16	18	
throat area	SPA_STG2	180		180	180	180	180	180	
TE thickness	TEB_STG1	0.2		0.2	0.2	0.2	0.2	0.2	

904

900

FIGURE 9